

HELPOS-EPOS

Εθνικός Κόμβος Σεισμολογικών Δεδομένων EIDA

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Ανοικτή Επιστήμη στον ελληνικό ερευνητικό ιστό:
Ερευνητικές Διαδικασίες, Ερευνητικά Δεδομένα, Συνεργασίες
29 Νοεμβρίου, 2018



Long term plans and initiatives



EUROPEAN PLATE OBSERVING SYSTEM
EPOS-ERIC established on 30/10/2018
(Greece as an Observer)

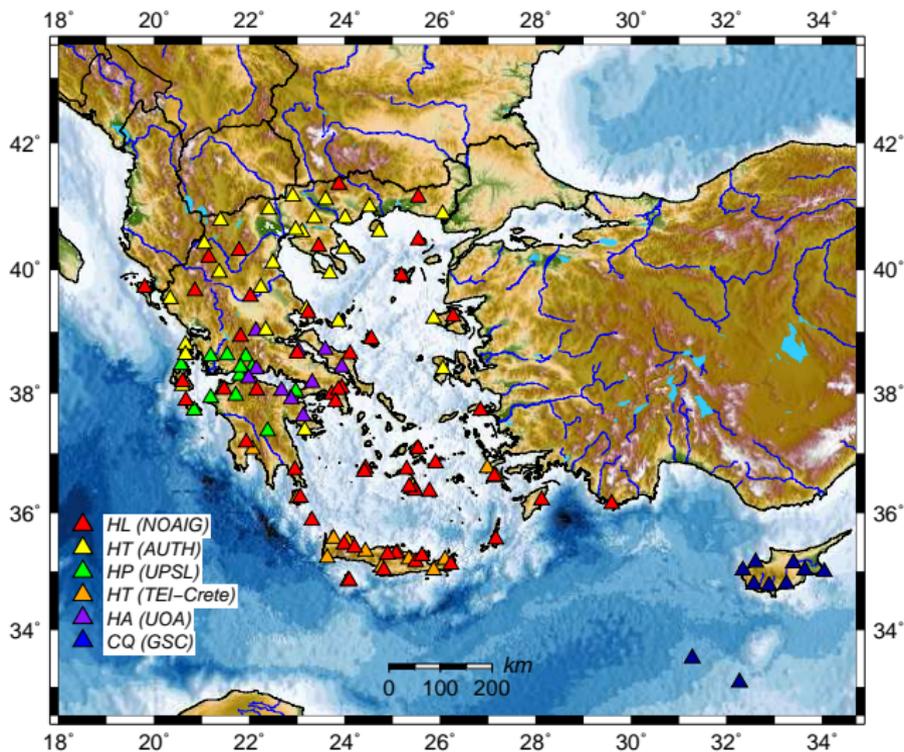


Support of the National Research Infrastructure for EPOS
NO support for ERIC annual membership fees



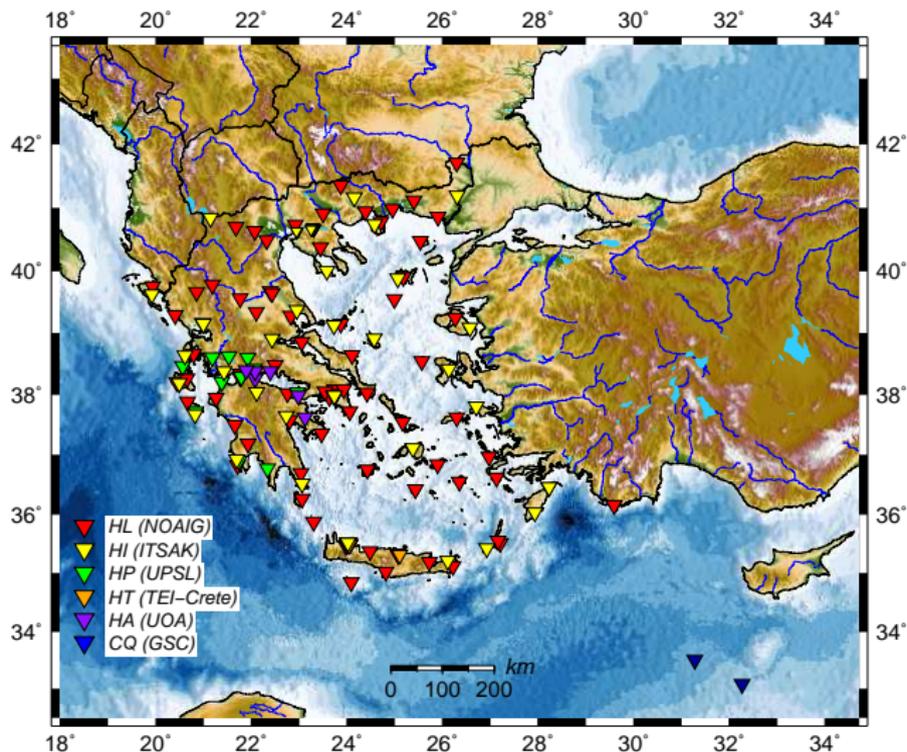
Ενιαίο Εθνικό Σεισμολογικό Δίκτυο (ΕΕΣΔ)

Σταθμοί Ευρέως Φάσματος



Ενιαίο Εθνικό Σεισμολογικό Δίκτυο (ΕΕΣΔ)

Σταθμοί Ισχυρής Εδαφικής Κίνησης



European Intergrated Data Archive (EIDA)

Mission

EIDA, an initiative within ORFEUS, is a distributed FEDERATED data centre established to (a) securely archive seismic waveform data and related metadata, gathered by European research infrastructures, and (b) provide transparent access to the archives by the geosciences research communities.



<http://www.orfeus-eu.org/eida/>



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- **HL** (*N.O.A., Hellenic Seismic Network*)
doi:10.7914/SN/HL
- **HT** (*Aristotle University of Thessaloniki Seismological Network*)
doi:10.7914/SN/HT
- **HA** (*National and Kapodistrian University of Athens, Seismological Laboratory*)
doi:10.7914/SN/HA
- **HP** (*University of Patras, Seismological Laboratory*)
doi:10.7914/SN/HP
- **HC** (*T.E.I. of Crete, Seismological Network of Crete*)
doi:10.7914/SN/HC
- **HI** (*ITSAK Strong Motion Network*)
doi:10.7914/SN/HI
- **EG** (*SDGEE AUTH, EUROSEISTEST Strong Motion Network*)
doi:10.7914/SN/EG
- **CQ** (*GSD of Cyprus, Cyprus Broadband Seismological Network*) -10 stations
doi:10.7914/SN/CQ
- **ME** (*Montenegro Seismological Observatory, Montenegrin Seismic Network*)
doi:10.7914/SN/ME

Κεντρική ιστοσελίδα EIDA

+NOA catalog+Any other?



Εθνικός κόμβος EIDA

Όγκος δεδομένων σε GB

year/net	HL	HT	HP	HC	HA	HI	CQ	EG	ME	X5*	Total (GB)
2010	503	279	267	-	225		-	-	-	-	1274
2011	1700	255	183	-	249		-	-	-	-	2387
2012	1900	307	229	-	305		-	-	-	-	2741
2013	2200	308	146	137	268	-	-	-	-	-	3059
2014	2500	262	139	158	199	-	101	-	-	-	3359
2015	2300	351	136	172	177	-	128	46	-	16	3326
2016	2400	366	106	177	151	-	142	93	9	43	3487
2017	2200	313	121	159	155	-	150	73	19	-	3190
2018-now	805	231	103	91	97	69	90	55	6	-	1547
2010-now	16508	2672	1430	894	1685	69	634	282	38	59	24228

Σε πλήρη λειτουργία θα αυξάνεται περίπου 7 TB τον χρόνο



Εθνικός κόμβος EIDA

Ασφαλής διαφύλαξη των δεδομένων σε διαφορετικούς φυσικούς χώρους και διακομιστές

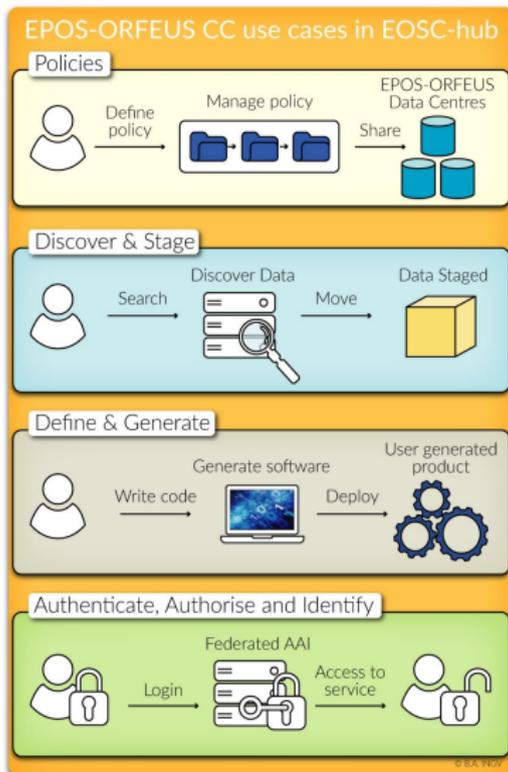
- node is running on Virtual Machines (with backup of the VM images)
- Main data center (Αθήνα-Πεντέλη):
 - NOA Network Attached Storage (NAS) - main storage of data acquisition (SDS archive) in NOA
 - EIDA-NOA VM Server “watches” the EIDA NAS
- Backup data center (Αθήνα-Θησείο):
 - EIDA NAS2 - copy of the entire NOA NAS
 - EIDA-NOA2 VM Server “watches” the EIDA-NAS2
- ★ Operated and maintained by NOA IT personnel
- GRNET Data center (ΕΔΕΤ): Under implementation...
 - EIDA data - copy of the entire NOA NAS
 - EIDA-NOA3 VM Server “watches” the EIDA-NAS-GRNET?
 - Load Balancing Server?



- Access and delivery channel for services, software and data provided by e-Infrastructures and research communities across Europe
- The EPOS-ORFEUS Competence Centre (CC) empowers users by establishing an enhanced service platform for seismological research
 - **iRODS** - Open source data management software for managing large distributed collection of digital objects, maintaining metadata and applying data management policies
 - **B2ACCESS** - EUDAT service for Authenticate, Authorise and Identify (AAI) in a federated manner
 - **B2HANDLE** - EUDAT service for registering research data uniquely
 - **B2STAGE** - EUDAT service for data transferring to external computational facilities (process data over the cloud)
 - **B2SAFE** - EUDAT service for distributing and storing large volumes of data based on data policies (data replication over the cloud)

EPOS-ORFEUS CC main user cases

- **Policies** - data centres can define and share data management policies
- **Discover & Stage** - researchers can discover data and initiate staging onto computational platforms, over the cloud
- **Define & Generate** - researchers can encode analysis methods into components, deploy and execute them close to data, over the cloud
- **Authenticate, Authorise and Identify** - secure access to data and compute resources underpins users' services



Σας ευχαριστώ!

